

REMARKS

Applicants respectfully request that this amendment be entered, and that their subject U.S. Patent application be passed to issuance in view thereof. Applicants respectfully submit that the amendments to claim 1 more clearly define Applicants' invention.

Claims 1-12 and 21-22 are pending in the subject application. Applicants have amended claims 1 and 4. New claims 21-22 have been added.

Claim Rejections - 35 U.S.C. 112, first and second paragraphs

The Examiner has rejected claim 1 under 35 U.S.C. 112, first and second paragraphs.

Applicants have made appropriate corrections to claim 1. The term "coupled" has been deleted from the claim.

Therefore, Applicants respectfully submit that the rejections under 35 U.S.C. 112, first and second paragraphs have been overcome.

Claim Rejections - 35 U.S.C. 102(b)

The Examiner has rejected claims 1-4 and 8 under 35 U.S.C. 102(b) as being anticipated by Akbar et al. (U.S. Patent No. 5,259,918).

Akbar et al. do not anticipate or suggest Applicants' independent claim 1, as amended, and claims 2-12 and 21-22 dependent thereupon.

Referring to FIGS. 1 and 2 of the present application, Applicants' claim 1, as amended, recites the limitations of a first pumping system 36/37 and a second pumping system 31/32/33 connected to flange 20 (or 62). A third pumping system 40/41 is connected to flange 24 or flange 62. Flange 20 (or 62) is connected to the reaction chamber 22 and load lock 18. A valve

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21 is located between flange 20 and load lock 18. Applicants' first, second and third pumping systems are each connected on the reaction chamber side of valve 21 so that the load lock can be isolated from the pumping systems (and the reaction chamber) during heating of the substrate.

Referring to FIG. 4 of Akbar et al., Akbar et al. neither disclose or suggest a flange connected to the load lock 106 and the reaction chamber 102. Rather, Akbar et al. teach the load lock 106 connected to reaction chamber 102 via valve 114. Pumping systems 108/110 and 118/120 are connected directly to load lock chamber 106 on the load lock side of valve 114 and thus can not be isolated from the load lock chamber 106 by valve 114. Akbar et al. does not disclose or suggest pumping systems 108/110 and 118/120 connected on the reaction chamber side of valve 114.

Therefore, Applicants respectfully submit that the rejections under 35 U.S.C. 102(b) have been overcome.

Claim Rejections – 35 U.S.C. 103 (a)

The Examiner has rejected claims 5 and 11 under 35 U.S.C. 103(a) as being unpatentable over Akbar et al. (U.S. Patent No. 5,259,918) as applied to claims 1-4 and 8 above, and further in view of Zhou et al. (U.S. Patent No. 5,879,467); claims 6, 9 and 10 under 35 U.S.C. 103(a) as being unpatentable over Akbar et al. (U.S. Patent No. 5,259,918) as applied to claims 1-4 and 8 above, and further in view of Chu et al. (U.S. Patent No. 6,013,134); and, claims 7 and 12 under 35 U.S.C. 103(a) as being unpatentable over Akbar et al. (U.S. Patent No. 5,259,918) in view of Chu et al (U.S. Patent No. 6,013,134) as applied to claims 6, 9 and 10 above, and further in view of Zhou et al. (U.S. Patent No. 5,879,467).

As discussed above, Applicants believe that Akbar et al. do not anticipate, teach or suggest Applicants' independent claim 1, as amended. Thus, Akbar et al., Zhou et al. or Chu et

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al., individually or in combination, do not teach or suggest Applicants' claims 5-7 and 9-12.

Therefore, Applicants respectfully submit that the rejections under 35 U.S.C. 103(a) have been overcome.

Prior Art Made of Record

Applicants have reviewed the prior art made of record, Meyerson (U.S. Patent No. 5,298,452), Venkatraman et al. (U.S. Patent No. 6,083,313), Barnett et al. (U.S. Patent No. 5,783,295), Markunas et al. (U.S. Patent No. 5,180,435) and Collins et al. (U.S. Patent No. 5,210,466), and respectfully submit that Applicants' independent claim 1, as amended, and claims dependent thereupon, are not anticipated, taught or suggested by the prior made of record.

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CONCLUSION

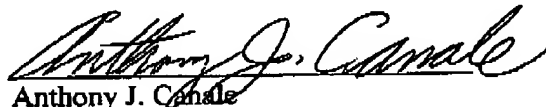
In light of the foregoing amendments and remarks, all of the claims now presented are believed to be in condition for allowance, and Applicants respectfully request that the outstanding rejections be withdrawn and this application be passed to issue at an early date.

The Examiner is urged to call the undersigned at the number listed below if, in the Examiner's opinion, such a phone conference would aid in furthering the prosecution of this application. No fee is due by virtue of this amendment. However, if the PTO determines that a fee is required, please charge Applicants' Deposit Account, 09-0456. If any extensions or fees are not accounted for, such extension is requested and the associated fee should be charged to our deposit account.

Respectfully Submitted,

For: Chu et al.,

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